

FIXED INSTALLATION

INSTALLATION CABLES

CYKY X-J (-O) 450/750 V

Application

For fixed surface or flush-mounted installations, indoors and outdoors. Suitable for installation in a slot covered with plaster. Installation in ground or concrete not recommended without additional protection. Cable does not need protection from direct sunlight. Core insulation should be protected from direct UV radiation, which may occur inside lighting for example.

Technical data

- > Rated voltage: 450/750 V

Temperature area

- > Max. operating temperature: 70°C
- > Max. short circuit temperature: 250°C
- > Lowest temp. at installation: -15°C

Standard length packing

- > 100 m coils or 500 m drums.
- > Other forms of packing and delivery are available on request.

Standards

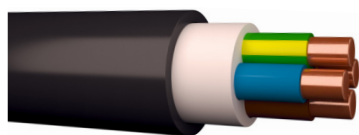
- > EN 50525-1
- > Cenelec HD 308 S2
- > IEC 60228
- > IEC 60364-5-52
- > EN 50575:2014
- > IST 2018.1
- > IEC 60332-1-2

Construction

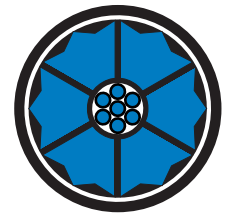
- > Cable shape : round
- > Conductors: solid
- > Insulation: XLPE
- > Marking of cores: colours
- > Outer Sheath: black PVC
- > UV-resistance: yes
- > Black and meter marked

CPR class

- > E_{ca}



Number of cores and cross-section	Approx. weight (kg/km)	Approx. diameter (mm)	Min. bending radius during installation (mm)	Min. bending radius at final installation (mm)	Max. conductor resistance at 20°C (Ω/km)
2x1,5	80	6,8	30	15	12,1
3x1,5	90	7,0	30	15	12,1
3x2,5	125	8,0	35	20	7,41
3x4	190	9,6	50	30	4,61
3x6	260	10,6	55	35	3,08
3x10	405	12,7	65	40	1,83
4 cores					
4x1,5	110	7,8	40	25	12,1
4x2,5	155	8,7	45	30	7,41
4x4	235	10,6	55	35	4,61
4x6	325	11,6	60	35	3,08
4x10	515	14,3	75	45	1,83
5 cores					
5x1,5	130	8,4	45	30	12,1
5x2,5	190	9,6	50	30	7,41
5x4	285	11,5	60	35	4,61
5x6	395	12,7	65	40	3,08
5x10	625	15,6	80	50	1,83



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INSTALLATION CABLES GUIDE TO USE

Below are provided some guidance to help installers and end users to handle the cables and ensure reasonable certainty on cable life time expectation. Additional information on installation practice is given in HD 60364 standard series.

- > Cables shall be selected so as to be suitable for the voltages and currents likely to occur
- > Cables not intended for use outdoors shall be stored indoors in dry locations
- > The current-carrying capacities shall be calculated in accordance with HD 60364-5-52
- > During handling or transportation, care shall be taken to minimize any mechanical stress, in particular vibration, impact, shock, bending and torsion
- > Care shall be taken during the installation and termination of cables so as not to damage the cables
- > Cables shall be prevented from being in contact with or close to hot surfaces
- > The tension applied to a cable shall not exceed 50 N/mm² during installation
- > A cable shall not be compressed to such an extent as to cause damage
- > Account shall be taken of the disruptive effects of the electromechanical forces caused by any current which the cables might have to carry in service, including short circuit currents
- > Cables shall not be damaged by any mechanical restraint used for their support
- > The recommended maximum spacing of supports is given below

Overall diameter (D) of cable (mm)	Maximum spacing of clips (mm)	
	Horizontal	Vertical
$D \leq 9$	250	400
$9 < D \leq 15$	300	400
$15 < D \leq 20$	350	450

- > The recommended minimum bending radius (R) is given below

Overall diameter (D) of cable (mm)	Minimum bending radius R (mm)	
	During installation	Final one time bending
$D \leq 8$	4xD	2xD
$8 < D \leq 12$	5xD	3xD
$12 < D \leq 20$	6xD	4xD

- > It is recommended that the minimum length of sheath is removed to keep the mechanical characteristics of the cable
- > When removing cable sheath, damage to the insulation shall be avoided
- > When stripping the insulation, any damage to the conductor shall be avoided
- > Cables which have been in use can be damaged if they are disturbed. This can arise from the effect of natural ageing on the physical properties of the materials